

9/29/00

EXECUTIVE SUMMARY

Prepared September 11, 1995

Mine Name: Papoose I.D. No: M/037/084
Operator: Cotter Corporation County: San Juan
P. O. Box 700 New/Existing: SMO expanding to LMO
Nucla, Colorado 81424 Mineral Ownership: State of Utah
Surface Ownership: State of Utah
Telephone: (970) 864-7347 FAX (970) 864-7347 Lease No.(s): ML45609
Contact Person: Glen Williams / Jon Showalter Permit Term: Life of Mine

Life of Mine: 10+ years

Legal Description: NE/4 NW/4; NW/4 NW/4; SE/4 NW/4; SW/4 NW/4; and NE/4 SW/4 of Section 36, Township 29 1/2 South, Range 24 East, SLBM

Mineral(s) to be Mined: Limestone

Mining Methods: Shallow open pit mining by drilling and blasting.

Acres to be Disturbed: 20 acres 491-2802

Present Land Use: Cattle grazing and wildlife habitat

Postmining Land Use: Cattle grazing and wildlife habitat

Variances from Reclamation Standards (Rule R647) Granted: R647-4-111.12 Topsoil Redistribution. Cotter will salvage all of the available topsoil at the site, however, they propose to replace the salvaged soil in a 12 inch depth over small areas within the disturbance to create "islands" rather than spread a thin veneer of soil over the entire disturbed area. The operator anticipates salvage of approximately 17,000 cubic yards of soil. This will provide soil cover for approximately 10.5 acres of the 20 acre disturbed site. Due to the sparse topsoil at the site, a variance to R647-4-11.13.11 Revegetation Success Standard is granted on those areas which do not receive topsoil. Reject limestone fines remaining at the end of mining will be used as a subsoil layer of 3-4 inches of the 12 inch soil layer.

Soils and Geology:

Soil Description: Soils are of the Longburn and Arabrab series on mesa tops. Texture is fine sand to sandy loam. These soils are shallow, well drained and have low fertility.

pH: 8.0

Special Handling Problems: None.

Geology Description: The limestone deposit consists of the upper unit of the Pennsylvanian aged

Hermosa Formation. The proposed mine site lies at an elevation ranging from 6650 to 6740 feet of elevation above sea level. The deposit slopes from 8-16% to the west toward an unnamed intermittent tributary of the Big Indian Wash. Waste rock generated by the mining operation will consist of fine reject material from the very thin interbedded friable quartz sandstone lenses and minor amounts of coarser material which are rejected due to quality (excessively weathered, silica nodules, etc.)

Hydrology:

Ground Water Description: No ground water has been encountered in the mining operation. Since the mine site is near the crest of the ridge there is insufficient recharge to contribute ground water to the area, especially at the shallow pit depth of 20 feet. All ground water flow is through faults and fractures in the limestone and into the underlying permeable sandstone. No seeps or springs are noted in the area.

Surface Water Description: (Storm Water Permit No. UTR000257) was issued by the Utah Division of Water Quality based on an adequate storm water handling plan.

Water Monitoring Plan: There is no water monitoring currently taking place. All surface water used in the operation is being purchased from the Redd Ranches in La Sal, Utah, and hauled to the site. Erosion control measures are being used to treat runoff during operations and at final reclamation of the site, therefore limiting any sediment laden water from leaving the site.

Ecology:

Vegetation Type(s); Dominant Species: Pinyon pine, Utah juniper, muttongrass, needle and thread grass, Indian ricegrass, Torrey ephedra, Datil yucca.

Percent Surrounding Vegetative Cover: 13.5%

Wildlife Concerns: None.

Surface Facilities: Small camp trailer currently serving as an office/storage/toilet facility. In the future, two small buildings may be constructed on site or moved in. One building would store lubricants and the other would store tools and equipment. A larger enclosed portable toilet may also be brought in if needed. A fueling station has been established within a bermed area to control spillage. (Division of Air Quality Permit #DAQE-378-95)

Mining and Reclamation Plan Summary:

During Operations:

Trees and brush will be stripped, winrowed, or piled using a bulldozer. The thin sporadic

soil will be stripped and stockpiled. Blast holes will be drilled with an air track drill equipped with a vacuum dust collection system to minimize dust emissions. Explosives will be loaded and the holes shot once a month. All possible approaches to the site will be closed by barriers, fencing or guarded during blasting. The maximum vertical highwall height will be approximately 20 feet. The broken rock will be mucked and trammed to the portable jaw crusher using a rubber tired loader. The limestone rock will be crushed and screen to a product size of minus 10 inch to plus 1/2 inch. Water sprays will be used, as needed, to minimize dust emissions from the crusher. The crushed product will be transported by conveyor or loader to the stockpile area. The undersize reject pile will be sprayed with water as necessary to control fugitive dust. A berm has been constructed around the stockpile area to prevent any mined material from washing down slope into the nearby drainage. The product is then loaded onto trucks for shipment. The crushing and stockpile areas will periodically be moved to the southeast as the pit advances in that direction. Reclamation will be done concurrently with mining as much as possible, however, the pit is not expected to be large enough to accommodate this until the third year of operation.

After Operations:

Before any portion of the pit is abandoned, the highwall will be cut or backfilled with course reject material to a slope of less than 45°. The available topsoil will be spread at a depth of 12 inches to form small islands and scarified using bulldozers and front-end loaders. The seedbed will be harrowed or disked to loosen the soil to a depth of 6 inches. This will then be broadcast seeded and then harrowed or raked. A few of the original trees will be scattered across any reclaimed areas. During the third year of operations, reclamation should begin on previously mined areas. This will be conducted concurrently with pit advances so as not to exceed the permitted 20 acres before release of reclaimed acreage. Buildings will be removed from the site. After mining operations cease and it is determined the access road and stockpile area are no longer needed (by SITLA) they will be reclaimed according to state reclamation standards. Any remaining reject material resulting from sizing operations will be disposed of in the pit or used to contour the pit walls to a 45° configuration before application of topsoil. Cotter has received a variance from the topsoil replacement requirements which will allow them to replace the salvaged topsoil in "islands" at a minimum depth of 12 inches rather than spread the topsoil in a thin veneer over the entire disturbed area.

Surety:

94.700 1-28-02 ESD 7313394
54.000 Am Home Insurance ESD-7789415 9/29/00
Amount: \$100,000 posted with SITLA; DOGM reclamation estimate \$47,600
Form: Surety Bond - United Pacific Insurance Company #
Renewable Term: Year 2000 Dollars